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## POLICY RESEARCH WORKING PAPER

# Do State Holding Companies Facilitate Private Participation in the Water Sector?

Evidence from Côte d'Ivoire,  
the Gambia, Guinea, and Senegal

*Michel Kerf*

Do state holding companies promote the success of private participation in the water sector? Apparently not, judging from experience in four African countries. There are very few functions that state holding companies are better suited for performing than other entities are.



## Summary findings

When the Gambia, Guinea, and Senegal decided to involve the private sector in the provision of water services, they also established state holding companies—state-owned entities with exclusive or partial responsibility for:

- Owning infrastructure assets.
- Planning and financing investments (replacing assets and expanding networks).
- Regulating the activities of the private operator.
- Promoting public acceptance of private participation in the sector.

In Côte d'Ivoire, by contrast, when private participation was introduced (in 1960), no state holding company was established.

To determine whether state holding companies help private participation in the water sector succeed, Kerf reviews the four functions these entities are expected to perform in the Gambia, Guinea, and Senegal. In light of experience in all *four* countries, he examines whether, and under what circumstances, state holding companies might be the entities best suited for carrying out such functions.

He concludes that creating a state holding company is often not the best solution. A state holding company might be better suited than other entities for planning and financing investments when (and only when):

- Investment responsibilities cannot be transferred to the private operator.
- Tariffs are insufficient, at least for a time, to cover investment needs, so it is crucial that a public entity have access to other sources of finance.
- The holding company's financial strength and accountability, or its incentives and ability to promote the gradual adoption of cost-covering tariffs, are superior to those of a ministerial department.

When one or more of these conditions are not met, the main investment responsibilities should be transferred to the private operator or, if that is not possible, left to the government itself.

The other three functions should not, as a general rule, be performed by a state holding company.

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This paper—a product of the Private Sector Development and Infrastructure Vice Presidency—is part of a larger effort to analyze the factors that contribute to the success of private participation in infrastructure. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Marie Leon, room F11K-190, telephone 202-473-6151, fax 202-522-2961, email address [mleon@worldbank.org](mailto:mleon@worldbank.org). Policy Research Working Papers are also posted on the Web at [www.worldbank.org/research/workingpapers](http://www.worldbank.org/research/workingpapers). The author may be contacted at [mkerf@worldbank.org](mailto:mkerf@worldbank.org). December 2000. (33 pages)

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**DO STATE HOLDING COMPANIES FACILITATE PRIVATE PARTICIPATION  
IN THE WATER SECTOR?  
EVIDENCE FROM CÔTE D'IVOIRE, THE GAMBIA, GUINEA, AND SENEGAL**

by  
Michel Kerf\*

**SUMMARY FINDINGS**

When Guinea, the Gambia, and Senegal decided to involve the private sector in the provision of water and sewerage services, they also established State Holding Companies (SHCs) which were 100 percent State-owned entities with exclusive or partial responsibility for: (i) owning infrastructure assets; (ii) planning and financing investments (i.e. main asset replacements and network expansions); (iii) regulating the activities of the private operator; and (iv) promoting public acceptance of the PPI reforms. In Côte d'Ivoire, by contrast, private sector participation in the water sector was introduced in 1960 but a SHC was never established. The objective of this paper is to review the experiences of those four countries to determine whether or not SHCs appear to promote the success of private participation schemes in the water sector.

The paper reviews the four types of functions performed by SHCs in Guinea, the Gambia, and Senegal, and discusses, in light of the experiences of these three countries and of that of Côte d'Ivoire, whether, and under what circumstances, SHCs might be the best suited entities to carry out such functions. The conclusion is that the creation of a SHC will very often constitute a sub-optimal solution. Establishing a SHC to plan and finance investments might be justified, but only under a set of very specific circumstances. A SHC might be best placed to plan and finance investments when: investment responsibility cannot be transferred to the private operator; tariffs are insufficient, at least for a time, to cover investment needs, so that access by a public entity to other sources of finance is crucial; and the financial strength and accountability of the SHC, or the SHC's incentives and ability to promote the gradual adoption of cost-covering tariffs, are superior to those of a ministerial department. When one or more of these conditions are not met, the main investment responsibilities should be transferred to the private operator, and if that is not possible, left to the Government itself. As to the other three functions, they should, as a general rule, not be performed by a SHC.

**1. INTRODUCTION**

1. As international experience with respect to private participation in infrastructure (PPI) developed, it became clear that institutional issues often determine to a large extent the success or failure of PPI arrangements. One such issue, which has received comparatively little attention so far, relates to

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whether - and under what conditions - the creation of a State Holding Company (SHC) in the water sector can positively or negatively affect the performance of PPI arrangements in that sector.

2. The term SHC can be used to refer to at least two rather distinct types of companies. The first type of SHCs are publicly owned companies which are set up to own and oversee the management of several public enterprises, often in different sectors of activity. Such SHCs might be established for a variety of reasons. Some of them are set up in the expectation that they will be able to manage the public enterprises which they own in a more efficient way than would a ministry. This was, for example, the principal goal of the establishment of SHCs in Algeria in 1988.<sup>1</sup> In other instances, the SHCs might be established to prepare the enterprises which they own for privatization and to then transfer these enterprises to the private sector. This was the case of the *Treuhandanstalt* in Germany which was set up in 1990 to transfer hundreds of ex East German public enterprises to the private sector, and which ceased its activities, as planned, in December 1994 when its task was substantially completed.<sup>2</sup> A body of literature is devoted to the different variants of this first type of SHCs, which are not the focus of the present paper.<sup>3</sup>

3. SHCs of the second type, which are those with which we will be concerned here, are set up when private operations are introduced in a particular infrastructure sector. Sub-Saharan Africa (SSA) is probably the region which has accumulated the widest experience with the use of SHCs alongside private operations in the water sector. In Guinea, Gambia, Senegal, and Côte d'Ivoire private sector participation was introduced by concluding leases – sometimes with elements of concession contracts - with private operators. Such contracts transferred some responsibilities to private operators but left some responsibilities to public authorities as well (for a brief description of the main types of PPI arrangements, see Box 1, below). The private operators were entrusted primarily with the tasks of: (i) operating and maintaining the water distribution systems; (ii) collecting revenues from the users (and sharing these revenues with public entities – see Box 1, below), and, in some cases; (iii) carrying out some investments (i.e. some asset replacements and network expansions). Public authorities, for their part, remained responsible for: (i) designing sector policies and strategies; (ii) owning infrastructure assets; (iii) planning and financing some or all investments; (iv) regulating the activities of the private operator; and (v) promoting public acceptance of the PPI reforms. In Côte d'Ivoire those five functions were performed, to a large extent, by the line ministry. In Guinea, Gambia, and Senegal, on the other hand, while the line ministry remained in charge of designing sector policies, SHCs were entrusted with important responsibilities with respect to the other four functions. In those three countries, the SHC was a 100 percent State-owned entity, staffed largely with some of the personnel of the public utility which used to be in charge of providing the service prior to the introduction of private participation in the sector. Another part of the staff of the old public utility – the vast majority in fact - joined the new company set up by the private operator.

4. The objective of this paper is to discuss the pros and cons of setting up SHCs of the type described in paragraph 3. The next section of the paper briefly discusses the factors which prompted the governments of Côte d'Ivoire, Guinea, Gambia, and Senegal to seek private sector participation in the water sector and reviews the main features of the institutional and contractual arrangements put in place in those four countries. The following section reviews, in turn, each of the four functions entrusted to a SHC in Guinea, Gambia, and Senegal and draws on the experiences of those three countries as well as on that of Côte d'Ivoire to try to determine whether a SHC does indeed appear best suited to carry out such

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<sup>1</sup> See Kumar (1992), at 12.

<sup>2</sup> See Guislain (1997), at 160-162.

<sup>3</sup> See, for example, Kumar (1992) and Kumar (1993).

functions or whether other public or private entities might in fact be better equipped. While the discussion focuses on the water sector in the four African countries mentioned above, many of the arguments presented here would be applicable to other developing countries and to other infrastructure sectors as well. It is important to emphasize, however, that the impact of setting up a SHC on the performance of a particular PPI arrangement will depend, in each particular case, upon the specific features of the proposed SHC and upon a wide variety of cultural, economic, legal and institutional factors which cannot all be discussed in a paper such as this one. The objective here is to identify the factors which are likely to be relevant in most contexts when deciding whether to set up a SHC and what functions to give to it. One should however keep in mind that each situation will require a specific analysis and that the conclusions presented here might have to be amended in the face of some particular circumstances.

### **Box 1: The Various Types of PPI Options**

*There is a continuum of options for involving the private sector in the provision of infrastructure services. Those options differ according to the extent of the rights and obligations transferred to the private operator.*

*First, there are subcontracting arrangements whereby the private party is not directly responsible for providing public services but instead performs specific tasks, such as supplying inputs, constructing works, maintaining assets, or billing customers, usually in exchange for a fixed fee.*

*Management contracts typically require the private party to manage a utility and provide services to the public for a given period of time. The remuneration of the private operator might be fixed at the outset, in which case the commercial risks of the operation are borne entirely by the public sector, or it might be linked to the performance of the utility, in which case the private operator might bear some commercial risks.*

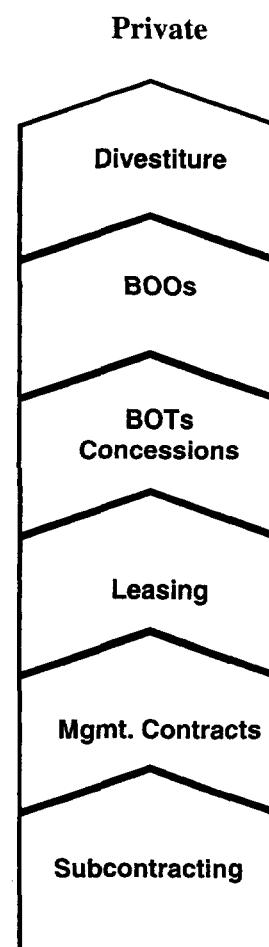
*Under leasing arrangements, the private operator is responsible for providing the service at its own risk, including operating and maintaining the infrastructure, for a given period of time. The operator is, however, not responsible for financing investments such as replacements of major assets or expansions of the network. If payments from the users cover more than the operator's remuneration, the operator is normally supposed to return the difference to the public authorities in order to cover the cost of the investments for which public authorities remain responsible.*

*Concessions are similar to leases except that the private operator is responsible for asset replacements and network expansions as well. The term BOT (build-operate-transfer) is often used to refer to greenfield concessions. At the end of a concession, or BOT, assets are returned to the public sector.*

*BOOs (build-own-operate) are similar to BOTs except that the scheme does not involve transfer of the assets to the public sector after a pre-determined period of time. The private operator thus remains responsible for carrying out all investments required to meet its service obligations.*

*Finally, divestitures involve the transfer to the private operator of the ownership of existing assets and the responsibility for future upkeep and expansion.*

### **RANGE OF PRIVATE SECTOR OPTIONS**



## 2. CHOICE OF PPI OPTION IN COTE D'IVOIRE, GUINEA, GAMBIA, AND SENEGAL

### 2.1. Côte d'Ivoire

5. The origins of the PPI option currently in place in the Côte d'Ivoire water sector go back a very long way. As early as 1959, before independence, an international tender was launched to select a private operator which would be responsible for the provision of municipal water services in Abidjan. Until that time, water supply services had traditionally been the responsibility of the municipalities, which tended to lack both the technical and the financial resources to operate the systems efficiently and to expand the networks. The French company, SAUR, won the tender and subsequently a new company, the *Société de Distribution d'Eau de Côte d'Ivoire* (SODECI), was formed with SAUR as the main shareholder. In 1974, responsibility for sector management was transferred to the central government and SODECI's contract was modified. President Houphouët-Boigny had apparently been impressed by the relative efficiency of SODECI – especially when compared with the performance of EECI (*Energie Electrique de Côte d'Ivoire*), the public utility which was by then running many of the water systems outside of Abidjan on behalf of the municipalities<sup>4</sup> - and SODECI's contract was expanded to include responsibility for operation and maintenance not only in Abidjan, but in all other Ivoirian cities as well. The Water Directorate of the Ministry of Public Works and Transportation, currently re-designated Ministry of Economic Infrastructure, became the owner of sector assets, and assumed responsibility for planning and investment as well as for monitoring SODECI's activities. Sector finances were however managed by an autonomous agency, the *Fonds National de l'Hydraulique* (FNH), which could borrow to finance investment and which also received the difference between the tariff that SODECI collected from the users and the lease fees that SODECI retained.<sup>5</sup>

6. In the late 1970's, Côte d'Ivoire was hit by a series of macroeconomic shocks from which the economy did not start to recover until the devaluation of the CFA Franc in 1994. While SODECI's operational performance remained very good – with high water quality, high collection rate from private users (although not from public users), high labor productivity (about 8 workers per 1000 connections in 1987), and low levels of unaccounted for water or UFW (about 15 percent in 1987, similar to figures observed in Western Europe) – a serious financial crisis developed in the sector in the 1980's. This was due, for the main part, to the fact that the Water Directorate, which did not have to consult SODECI on the planning of the investment program and was not responsible for ensuring that sufficient financial resources existed to implement that program, designed overly ambitious projects in the 1980's and failed to anticipate the extent to which demand would be affected by the crisis. Increases in the water tariff, implemented in 1981 and 1984, also depressed large users' demand. As large industrial users, which were paying the highest rates, sharply reduced their water consumption, the resources which SODECI transferred to the FNH dwindled. By 1985 no investment could be made in the network and the connection rate, which had been about 80 percent in 1980 progressively fell to just above 70 percent in 1987 (see Box 2 below).

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<sup>4</sup> See Ménard and Clarke (2000b), at 5.

<sup>5</sup> Between 1975 and 1987, 80 percent of investment was funded through borrowing from bilateral and multilateral agencies, as well as from commercial banks. See Ménard and Clarke (2000b), at 21.

**Box 2: The 1980s Financing Crisis in the Côte d'Ivoire Water Sector**

*After independence, Côte d'Ivoire enjoyed almost 20 years of sustained economic growth (GDP growth averaged almost 8 percent per year between 1961 and 1979). In the late 1970's, however, the prices of cocoa and coffee substantially dropped. As those two commodities represented over 60 percent of Côte d'Ivoire merchandise exports in 1979, growth radically slowed and the public sector deficit ballooned. To reverse this trend, the Government reduced public investment, froze wages, and significantly increased the prices of utility services. Water tariffs, which had been set at US\$0.40 per cubic meter in 1974 were raised in 1981, to reach an average of US\$0.71, and again in 1984, when water tariffs for industrial users more than doubled.*

*As a result, industrial and commercial users started to reduce waste, recycle water, and rely upon their own wells. Demand by large water users fell by 30 percent between 1980 and 1985. At the same time, the number of connections continued to grow but those were mostly social connections for poor users who consumed little water. Overall, water demand remained about constant. Total water revenues did substantially decrease, however, as the price paid by small users was far lower than the price paid by commercial and industrial users. As SODECI's remuneration was about the same for all tariff levels, the part of the consumer tariff which could be allocated to cover debt service and investment - which SODECI was supposed to transfer to the Fonds National de l'Hydraulique (FNH) - was substantially reduced.*

*In addition, the Water Directorate which assumed responsibility for investment planning failed to anticipate the stagnation of water demand, and this in turn had two adverse consequences on sector finances. First, the Water Directorate continued to plan expansions of productive capacity in Abidjan and in the secondary centers, and by the mid-1980's, the utilization rate for productive capacity had become very low. Second, as SODECI's remuneration was based upon projected, not actual revenues, SODECI's revenues were based upon an over-estimate of water consumption and were therefore protected at the expense of the revenues allocated to the FNH. As a result, no transfer of resources from SODECI to the FNH took place in the mid-1980's and no investment took place in the water sector in 1985 and 1986.*

Source: Ménard and Clarke (2000b).

7. In 1987, the Government started to implement a restructuring program in an attempt to alleviate the water sector crisis and take into account some of the lessons learned during the previous years. Instead of splitting responsibility for planning and for financing investments between two different entities (the Water Directorate and the FNH), it was decided to transfer the planning function to SODECI and to try to ensure that investment would be self-financed. Initial negotiations focussed on implementing a full concession contract under which SODECI would have assumed full responsibility for investment and debt service. The overall economic environment was, however, unfavorable; it was not clear that sector revenues would be sufficient to cover debt service requirements; and SODECI indicated that it was not prepared to assume all investment and debt service risks. While the new contractual arrangement gives to SODECI planning responsibilities and therefore a large degree of control over investment,<sup>6</sup> it however remains a lease because SODECI does not commit its own resources to implement the investment program and to cover debt service charges, and it does not, therefore, bear any investment-related risks. Financial resources for investment and debt service are supposed to be

<sup>6</sup> Despite contractual provisions which gave to SODECI responsibility for planning and executing investment, a public agency remained in charge of those functions during the first eight years of contract implementation. See paragraphs 32-33, below.



generated only by the difference between consumer tariffs and SODECI's lease fees. Such resources are channeled to the *Fonds de Développement de l'Eau* (FDE) which funds investment expenditures and to the *Fonds National de l'Eau* (FNE) which funds debt service.

8. Prior to 1987, SODECI had been obliged to operate and maintain any additions made to the existing system but was guaranteed compensation if the amount of water actually consumed fell below some forecasted levels calculated so as to take into account any extensions of the network. As SODECI became responsible for investment planning, that guarantee was eliminated. In addition to the guarantee, SODECI had also benefited from relatively high lease fees. By suggesting that they might allow other companies to bid for the contract, the authorities managed to negotiate a 20 percent reduction of those fees with the private operator. The Water Directorate, for its part, remained responsible for monitoring SODECI's contract and for supervising new investments.

## 2.2. Guinea

9. In Guinea, water sector reforms were introduced in 1988-1989. While in Côte d'Ivoire, a financial crisis revealed the need for reform even though operational performance had remained very good, in the Guinean water sector, both the financial situation and the operational performance were catastrophic prior to the reforms. A public agency, the *Entreprise Nationale de Distribution de l'Eau Guinéenne* (DEG), was responsible for operation, maintenance, and investment in Conakry and other urban areas. DEG was supposed to be an autonomous agency with a board comprising representatives from several ministries. In practice, its board never met and it was treated as a department of the Ministry of Natural Resources and Environment (MNRE). Like the rest of the Guinean civil service in the 1980's, it was under-funded, over-staffed, and grossly inefficient (with more than 40 workers per 1000 connections in 1987). Water tariffs were well below long run incremental costs and public resources were insufficient to maintain and expand the system. In addition, collection rates were extremely low (few private users were billed and it was estimated, in 1987, that only about 15 percent of those who were billed actually paid for the water they consumed).<sup>7</sup> As a result, the water network was in very poor shape (with UFW at levels above 50 percent), water quality was low, and the connection rate was below 40 percent in spite of the presence of abundant fresh water, only 60 km away from Conakry, which could be brought to the capital via a low cost gravity-fed system.<sup>8</sup>

10. The military regime that came to power in 1984 recognized that substantial reforms were required and the measures finally adopted in the late 1980's were heavily influenced by recent experience in Côte d'Ivoire. Prompted by the poor state of public finances and by donors' indications that funds would not be forthcoming unless steps were taken to raise tariffs, the authorities decided, as in Côte d'Ivoire, that investment in the water sector should be self-financing. However, as tariffs had been set at very low levels, it was decided that it would be politically too difficult to bring them to cost-covering levels immediately. Instead, financial self-sufficiency was to be reached over a period of six years during which government funds and proceeds from a World Bank loan would be used to subsidize prices on a declining basis. Because of the very poor track record of DEG, the authorities also became convinced that private sector involvement was necessary. But given the dilapidated state of the infrastructure, the widespread habit of not paying for water consumption, the political instability which marked the early years of the military regime, and the absence of credible safeguards against arbitrary interventions by the Government, transfer of sector assets to a private operator could only have taken place at a very low (perhaps even at a negative) price and this was politically unacceptable. In addition, the authorities considered that no private operator would be willing to assume investment and debt service risk in the

<sup>7</sup> See World Bank (1989).

<sup>8</sup> For a detailed description of the Guinean water sector prior to the reforms, see Ménard and Clarke (2000a).

Guinean environment. For those reasons, as in Côte d'Ivoire, it was decided to involve a private operator in the sector through a lease rather than through a concession contract. The Société d'Exploitation des Eaux de Guinée (SEEG), a joint-venture between SAUR and Compagnie Générale des Eaux, was selected through competitive bidding in 1989 and assumed responsibility for operation and maintenance, as well as for renewal of small pipes (less than 160mm in diameter).

11. The Guinean authorities attempted to design an institutional framework which, unlike the one in place before 1987 in Côte d'Ivoire, would ensure that responsibility to plan and to finance investments was vested in the same entity, and that the private operator's remuneration was kept under strict control. The option which was chosen was to set up a SHC, the Société Nationale des Eaux de Guinée (SONEG), a 100 percent State-owned agency responsible, *inter alia*, for owning sector assets and for planning and financing investments. SONEG is also in charge of monitoring SEEG's activities and of negotiating with SEEG the percentage of collected revenues that the private operator can retain. As the rest of those revenues is to be transferred to SONEG, it was expected that SONEG would keep a close watch over the level of SEEG's allowed remuneration. Political and social considerations undoubtedly played a role as well in the decision to set up a SHC and to transfer some sectoral responsibilities to that entity rather than to allocate such responsibilities to a ministerial department such as the Water Directorate in Côte d'Ivoire. For example, the creation of SONEG reduced, to some extent, DEG's employees opposition to the reform as the prospect of finding a job within a specialized sector-specific entity such as SONEG was more appealing to those DEG staff who feared that they would not be retained by the private operator than the prospect of being transferred to a department of the MNRE.

### 2.3. Gambia

12. In Gambia, sector reforms aimed at introducing private participation in water supply were implemented in 1993, after earlier reform efforts aimed at improving the performance of the public operator proved insufficient. The Gambia Utility Corporation (GUC) – a public entity – was established in 1972 to provide water supply and electricity distribution services to the capital Banjul and to the provincial cities. Sector performance was extremely poor for a variety of reasons: tariffs were set below costs; governance was extremely weak, with a board made up exclusively of civil servants and constant governmental intervention in the day to day running of the corporation; GUC was grossly over-staffed with more than 1000 employees in charge of very small water and electricity systems (about 7,000 water connections and 12,000 electricity connections in 1986), and GUC staff were extremely low-skilled with illiteracy rates of 50 percent among supervisory staff and 90 percent among lower level staff.<sup>9</sup> As a result, over the 1980's, the water distribution system failed to meet increasing demand due to rapid population growth and urbanization, the quality of the network deteriorated with UFW levels reaching at least 40 percent, water quality was poor, and uncollected bills increased to reach an estimated 40 percent of receipts toward the end of the decade.<sup>10</sup>

13. To try to stem these problems, the Government concluded a performance contract with GUC in 1988 and changed the structure of GUC's board in 1990. The new board imposed managerial changes within GUC and greater efforts were made with respect to tariff collection (including imposition of some service cuts in case of non-payment). Overall, results proved unsatisfactory, however, as GUC failed to meet its performance obligations and the Government failed to honor its commitment to raise tariffs to compensate for cost increases due, *inter alia*, to higher fuel taxes.<sup>11</sup> Finally, in 1992, the Government

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<sup>9</sup> See World Bank (1986), at 1-7.

<sup>10</sup> See République du Sénégal, Ministère de l'Hydraulique (1994), Vol. II, at 8.

<sup>11</sup> *Id.*

decided to implement further reforms and to seek the participation of a private operator in the water and electricity sector. For reasons similar to those which applied in the Guinean case – i.e. poor state of the assets, poor collection record, and political uncertainty – transfer of assets to the private sector would have had to take place at a very low or even at a negative price, and this was considered politically unacceptable. It was clear also that no private operator would be willing to assume financial responsibility for investment and debt service. The contractual option chosen was therefore a lease and Management Service Gambia (MGS), a company owned mainly by the French enterprise SOGEA, was selected as the lessee through competitive bidding. It started operations in July 1993 and was given responsibility for operation and maintenance, for renewal of small pipes, and for formulating proposals for new investments.

14. As in Guinea, the Government decided to set up a 100 percent State-owned SHC. The Utilities Holding Corporation (UHC) was to receive the - relatively small difference - between user tariffs and MSG's remuneration,<sup>12</sup> and take responsibility, inter alia, for owning sector assets, for taking final decisions with respect to the planning and financing of renewals and new investments, and for monitoring the activities of MSG. The reasons why the authorities decided to set up such a SHC were similar to those which prevailed in the Guinean case: the belief that a SHC would be better equipped than a ministerial department to perform these functions, and a desire to assuage the sector employees' concerns about reform by giving to some of them the prospect of employment within a specialized public body.

## 2.4. Senegal

15. In Senegal, as in Gambia, the decision to introduce private sector participation in the water sector in the 1990's was taken after earlier reform efforts failed to deliver sufficient improvements. The provision of urban water services, which was a private business at the time of independence, was nationalized in 1972 and directly controlled by the Government. During the 1970's, substantial investments were implemented in the sector but service quality remained low because of poor planning and excessive sophistication of some installations which, subsequently, could not be maintained properly. In an effort to reduce the direct influence of the central Government in the management of the sector, it was decided to transfer all assets and related debt service obligations to a public enterprise, the Société Nationale d'Exploitation des Eaux du Sénégal (SONEES). SONEES concluded a *contrat-plan* with the Government in 1988, which was modified in 1990 to take account of the experience of the first two years. Under the terms of the contract, SONEES was granted primary responsibility for operation, maintenance, and rehabilitation in the urban water supply sector, while the Government undertook to review tariffs twice a year in line with a pre-determined pricing formula, and to ensure that central and municipal authorities would pay their water bills. The Government did not live up to its part of the agreement, however: it did not increase tariffs according to the pricing formula; it failed to curb non-payment by public authorities; and it maintained control over most investment decisions. As a result, while SONEES' operational performance was broadly satisfactory, and while labor productivity was high (with about 7 employees per 1000 connections in 1994), revenues were insufficient to cover costs and this had severe negative consequences on the state of the network. UFW was about 30 percent in 1994, water quality was unequal, and while about 80 percent of the population in Dakar had access to safe drinking water, this was not the case for a substantial, and growing, number of poor residents.<sup>13</sup>

<sup>12</sup> Consumer tariffs varied between different types of consumers and the consumer tariffs for agriculture and for domestic use below 20 cubic meter were in fact inferior to the level of the lessee's remuneration. Therefore, when it sold water to those two types of consumers, the lessee transferred nothing to the SHC and, on the contrary, retained some of the receipts which would otherwise have been transferred to the SHC to bring its remuneration to the agreed level. Id., at 14.

<sup>13</sup> See World Bank (1995a) and Janssens (1999).

16. In the mid-1990's, the authorities decided to implement substantial reforms, including introduction of private participation in the urban water sector. As in Côte d'Ivoire and Guinea, financial self-sufficiency was seen as a key sectoral objective, and the authorities considered that a private operator would be able to reap efficiency gains which would limit the extent of the tariff increases required to meet that objective. The Government decided to raise tariffs gradually, and it was estimated that an increase of 2.4 percent per year from 1996 to 2003 would bring the sector to financial equilibrium (as opposed to 5 percent per year without private participation).<sup>14</sup> Private sector involvement was also seen as essential to ensure real operational autonomy from the Government and to put greater pressure on public authorities to reduce their water consumption and pay their water bills. As in the other countries, a transfer of assets to the private sector was considered politically unacceptable and the overall environment was seen as insufficiently attractive to convince private operators to assume full debt service and investment risks. The type of private sector arrangement chosen in Senegal corresponds therefore broadly to a lease, but the private operator is required to undertake some investments every year: the private operator has to renew pipes over a pre-specified distance which varies depending upon the diameter of the pipes which the private operator chooses to renew. The Sénégalaise des Eaux (SDE), a private company with SAUR as the main shareholder, was selected as the lease contractor in 1996 through an international bidding process.

17. The Government also decided to set up a 100 percent State-owned SHC, the Société Nationale des Eaux du Sénégal (SONES), which was to receive the difference before total consumer tariffs and SDE's remuneration and which would be responsible, *inter alia*, for owning sector assets, planning and financing investments (except for the renewals undertaken by SDE), and for monitoring the activities of SDE. As in Guinea and Gambia, the authorities considered that a SHC would perform these functions with more efficiency than a central ministry, and that setting up a SHC would help rally SONEES' employees to the reform process. The relatively good performance of SONEES constituted an additional reason, in Senegal, for maintaining a specialized public entity in the water sector. Finally, those in favor of establishing a SHC argued that SONES would be able to obtain a loan from commercial banks to cover the temporary cash shortfall which would develop before the sector reached financial self-sufficiency in 2003, and that thanks to SONES the Government would thus not be required to take on additional debt.

### 3. PERFORMANCE OF SHCs

18. In order to determine the potential usefulness of SHCs, the present section discusses the way in which the SHCs established in Guinea, Gambia, and Senegal performed their functions as well as the way in which those same functions were performed in Côte d'Ivoire. As mentioned above, those functions relate to: (i) owning infrastructure assets; (ii) planning and financing asset replacements and network expansions; (iii) regulating the activities of the private operator; and (iv) promoting acceptance of the PPI arrangement.

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<sup>14</sup> See World Bank (1995a), at 34.

### 3.1. Owning Infrastructure Assets

19. Owning infrastructure assets involves the following types of tasks: acting as custodian of the assets; maintaining an asset register; bringing and defending suits involving ownership interests in the assets; and determining dividend policy in compliance with the owners' bylaws and/or general legislation. Ownership also implies the right to use the assets or to delegate that right. As mentioned above, in all four countries discussed here, the right to use the assets in order to provide water distribution services to the public was delegated to a private operator. While SHCs were entrusted with ownership functions in Guinea, Gambia, and Senegal, such functions are performed by the Ministry of Economic Infrastructure in Côte d'Ivoire.

#### *Public vs. Private Sector Options*

20. An important body of literature is devoted to the question of whether enterprises perform better under public or private ownership.<sup>15</sup> Some authors have argued convincingly that when the State owns enterprises, it tends to impose upon those enterprises a set of conflicting social and commercial objectives which hampers the ability of those enterprises to function efficiently. In addition, they point out that reforms designed to subject enterprises to stiffer competition and to increase their commercial focus while maintaining those enterprises under public ownership have proven extremely difficult to sustain over the long run. Such reforms can improve the performance of public enterprises for some time, but after a while, government intervention tends to increase again, and the performance of public enterprises starts to deteriorate.<sup>16</sup> Consequently, there is today a growing consensus that, to the extent possible, enterprises carrying out commercial functions should be privately-owned in order to be able to focus on their commercial objectives and that social objectives should generally be pursued through means other than the public ownership of commercial enterprises. For governments in the process of designing PPI schemes, this would a priori seem to constitute a powerful argument in favor of transferring ownership of utilities to private operators.

21. In infrastructure sectors, however, public service provision is generally highly regulated. Such regulations are usually imposed on the grounds that they are necessary to prevent the accumulation of monopoly profits in activities which retain natural monopoly characteristics, or that social considerations or information failures prevent leaving the price and quality of infrastructure services to unregulated markets. Those two types of arguments are usually considered to be of particular relevance to water distribution activities. A discussion of whether those arguments do indeed justify regulating the sector is beyond the scope of this paper.<sup>17</sup> What matters here is that even when private sector participation is introduced in water distribution, regulations – concerning tariffs, performance targets, exclusivity rights etc. – are likely to remain prevalent for some time at least in the sector. In those conditions, the quality of the regulatory regime might well affect the incentive framework and therefore the performance of the operators more than the type of ownership.<sup>18</sup>

<sup>15</sup> For a review of that literature, see, for example, Kwoka (1996).

<sup>16</sup> See, for example, Kikeri, Nellis and Shirley (1994), at 246-247.

<sup>17</sup> For an excellent presentation of the arguments in favor of deregulating the provision of water services, see Brook and Cowen (1998).

<sup>18</sup> It has been pointed out, for example, that the British option of transferring ownership of water sector assets to the private sector and the French option of relying on concessions under which municipalities retain ownership of the assets, might in fact bear many similarities and provide very much the same incentives to the operators. Indeed, while private firms own the assets in Britain, they need an operating license which the Government can revoke after 25 years with 10 years' notice. And while private firms in France do not own the assets,

22. One has to recognize, in addition, that private firms might be unwilling to assume the legal obligations associated with the ownership of water sector assets. This will often be the case, for example, if the transfer of ownership entails the transfer of the liabilities of the public utility to the new private investors.<sup>19</sup> Finally, transferring to a private operator infrastructure assets considered by many as strategic is often politically difficult, particularly when the commercial value of those assets is small as was the case in Guinea, Gambia, and Senegal for example.

### *Public Sector Options*

23. When considered separately from the investment planning and financing functions discussed below, the core ownership functions - which involve mainly book-keeping, dividend policy design, and legal representation - are limited in scope and require competencies of a legal and financial nature which are not particularly sector-specific. In those conditions, even when public ownership of the assets is the preferred - or only feasible - option, it is hard to argue that a new sector-specific public entity is needed to perform the key ownership functions. In addition, SHCs are not necessarily better endowed with the legal and financial expertise required than other public bodies: while some SHCs have proved able to carry out ownership functions satisfactorily, others have failed to do so. UHC, in Gambia, is a case in point: a review of its performance carried out in 1995 revealed that records on water production were missing or incomplete, tariff history was not readily available, sales figures were incoherent, and some audit reports were missing.<sup>20</sup>

24. One could argue that in order to properly manage potential tensions between the State's interests as an owner (such as maximizing the value of the assets, for example) and its interests as a policy maker (such as ensuring the most efficient service provision possible), there might sometimes be an advantage in conferring ownership functions to a SHC rather than to the ministry already in charge of sector policy. However, such a formal separation between the ownership and policy functions is likely to be illusory in practice given the high degree of control which the authorities in charge of sector policy typically retain over the 100 percent publicly-owned, sector-specific, SHC. In Guinea, political interference in the running of SONEG, the SHC, has been a constant problem as various ministries seek to impose their priorities upon the company, either directly or through the board members which they designate.<sup>21</sup> In Gambia, the Government retained as much control over UHC, the SHC, as it held previously over the public operator GUC: UHC was placed under the direct authority of the President's cabinet and it was the cabinet, which, in practice, took all key decisions on both ownership and policy matters.<sup>22</sup> In Senegal, SONES, the SHC, appears to be somewhat more independent, but its Director General has been directly chosen by the Ministry of Hydraulics.<sup>23</sup>

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municipalities tend in practice to re-award the concession to the incumbent when the contract expires. See Kerf et al. (1998).

<sup>19</sup> For a discussion of that topic, see Guislain (1997), at 66-67.

<sup>20</sup> See World Bank (1996), at 7.

<sup>21</sup> See République du Sénégal, Ministère de l'Hydraulique (1994), Vol. III, at 28.

<sup>22</sup> Id., Vol. II, at 10.

<sup>23</sup> In 2001, however, when the successor of the current Director General is chosen, SONES' board is supposed to propose three candidates to the Minister of Hydraulics who will be obliged to choose one of those candidates as the Director General.

25. In order to adequately manage tensions between ownership and policy functions, ownership functions need to be allocated to an entity which enjoys much more autonomy from government than a sector-specific SHC of the type described here typically does. When infrastructure services in different sectors are provided by private operators, a first possibility might be to transfer ownership responsibility in these different sectors to a cross-sector SHC, on the assumption that a cross-sector body might be better able to maintain arms' length relationships with any single ministry, and therefore with the government as a whole, than a sector-specific body. In most cases, such an arrangement is likely to be insufficient, on its own, to ensure autonomy however. As mentioned above, while it is a sector-specific body, SONEG's board is made up of representatives from various ministries and this has not prevented government's interference in the management of the company. A somewhat more promising scheme might be to allocate ownership and policy responsibilities to two separate ministries, for example the Ministry of Finance on the one hand and the relevant sector ministry on the other. The success of the scheme would however depend upon the degree of autonomy which exists in practice between the two ministries. In a country like Gambia where all key decisions in the water sector were taken by the President's cabinet, formally conferring different functions to different ministries would most likely have made little real difference.

26. A scheme which might deserve some consideration consists in transferring ownership responsibilities to municipal authorities, while overall sector policy remains the purview of the central government. Such a model has been widely adopted in France, for example: municipalities tend to retain ownership of the assets and often delegate service provision to private operators, while sector policy is designed mainly at the regional and central level. In Gdansk also, the city retains ownership of water assets and a lease contract has been signed with a private operator, while sector policy is determined to a large extent by more centralized authorities.<sup>24</sup> This model might ensure some separation of responsibilities where municipal governments are elected locally and enjoy some real measure of autonomy from the central government – a situation which might tend to become more frequent as a growing number of countries are implementing decentralization policies.

### **3.2. Planning and Financing Asset Replacements and Network Expansions**

27. As indicated in Box 1, above, PPI arrangements differ according to the amount of responsibilities which they transfer to the private operator. Under the types of PPI arrangements implemented in Guinea, Gambia, Senegal, and Côte d'Ivoire, the responsibility for planning and financing investments in the water sector has been retained, at least in part, by the public sector. As mentioned above, such investments encompass at least some asset replacements as well as network expansions, but not maintenance operations which are the responsibility of the private operator. Public sector responsibilities might thus include: planning those investments; contracting with and supervising the enterprises in charge of undertaking the required civil works; and ensuring that appropriate sources of finance are available to perform those works. As indicated above, in Guinea, Gambia, and Senegal, SHCs were established specifically to plan and to finance the public investment program in the water sector. In Côte d'Ivoire after 1987, on the other hand, ultimate responsibility for financing investments has been retained by the Government (with tariffs supposedly set at levels sufficient to cover both investment and debt service costs) while the private operator has assumed primary responsibility for planning the investments.

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<sup>24</sup> See Rivera (1996), at 15.

*Public vs. Private Sector Options*

28. There are powerful arguments in favor of transferring responsibilities not only for operation and maintenance, but also for investment planning and financing to the private operator. First, in many countries, governments and public agencies in general have a rather poor track record with respect to the planning and financing of water sector assets and they often lack the financial, and sometimes even the technical, resources required to perform such functions in an adequate and timely manner. By contrast, while private capacity to perform those functions might sometimes be lacking in the domestic market – especially when water provision has been monopolized by public entities for a long time – such capacity will often develop quickly when private operators gain access to the sector. In addition, some reputable foreign private operators will have levels of technical and managerial know-how generally superior to those of the public sector, and they will often have a greater credibility in the financial markets than public water companies. Second, when private operators assume responsibility for investment financing, they become an important constituency in favor of sustainable revenue-raising mechanisms ensuring that all costs – i.e. operation and maintenance costs, as well as investment costs – are fully covered. Such mechanisms, in turn, are a key pre-condition to gain access to finance and to generate the financial resources needed for increased service quality, and faster network expansion. Consumer tariffs which reflect the full cost of service will also tend to promote socially efficient levels of consumption.<sup>25</sup> Third, transferring investment responsibility to the private operator prevents potentially serious coordination problems. When, under a PPI arrangement, it is a public entity which takes decisions with respect to investments without having direct operational responsibilities, there are risks that the investment program might not optimally reflect operational needs. This risk is particularly important when the public entity, as is often the case, is required to pursue non-commercial objectives. Private operators, on the other hand, have a vested interest in ensuring that investment decisions are responsive to operational needs, profitable, and therefore quickly implemented. Fourth, distinguishing clearly between investment and maintenance is notoriously difficult, and when different parties are each responsible for one of those tasks, they actually have incentives to disagree: the private party will often argue that an asset should be replaced, i.e. that investments are needed (by the public party), while the public party will assert that the asset should on the contrary be maintained for some more time (by the private party). Finally, even if the allocation of responsibilities can be clarified, it might remain difficult to determine who should be accountable for overall performance when responsibilities are split, since both parties substantially contribute to the overall quality of service provision.

29. The experience of those countries where private operators were given no responsibilities – or only minor responsibilities – with respect to investment planning and financing does indeed tend to

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<sup>25</sup> Barring externalities, charging prices equal to marginal costs ensures socially optimal levels of consumption. In network activities such as water distribution, which present substantial economies of scales, cost-covering tariffs (i.e. prices set at average costs levels) will however generally be above marginal costs and therefore above socially optimum prices. However, even when they are above socially optimum prices, cost-covering tariffs might still mark progress toward such socially optimum prices in the many countries where water used to be considered as a free commodity with an actual price close to zero. In addition, even in network activities, efficient price signals can still be sent to users under a cost-covering tariff regime if users are requested to pay a set connection fee, as well as a consumption fee which covers the marginal cost of providing the service. Under a two-part tariff of that type, consumption levels will still be close to socially optimum levels provided that the connection fee is not so high as to induce users to cancel the service. When users cannot afford the connection fee however, or when the provision of water distribution services is associated with substantial positive externalities, public subsidy schemes might have to be considered. But one has to recognize that this might make it impossible to transfer investment responsibility to private operators until the public authorities have demonstrated the credibility and sustainability of such schemes.



illustrate the problems mentioned in the preceding paragraph. As already pointed out, such problems were clearly present in Côte d'Ivoire prior to 1987 (see Box 2, above). Similar problems also arose during implementation of the PPI arrangements in Guinea, Gambia, and Senegal, and, to a certain extent, after the 1987 reform in Côte d'Ivoire as well, as will be shown below. On the other hand, there is evidence that such difficulties have been avoided in at least some PPI arrangements under which responsibilities not only for operation and maintenance, but also for investments, were transferred to the private operator. This appears to be largely the case, for example, in Argentina, where the authorities decided to involve the private sector in the provision of water and sewerage services in Buenos Aires. A thirty year concession contract was awarded in 1993, under which the concessionaire committed to undertake all investments necessary to meet specific performance targets relating inter alia to water pressure and quality, percentage of population served, and network renovation schedule. While implementation of the contract is not exempt of difficulties<sup>26</sup>, the private operator has strong incentives to lobby for tariffs which cover the full costs of service, it is able to coordinate its investment program to meet operational needs, its responsibilities are clear, and there is no doubt about who is accountable for overall service performance.<sup>27</sup>

### *Public Sector Options*

30. While the benefits of allocating responsibility for operation and maintenance as well as for investment planning and financing to the private operator can be substantial, such arrangements remain, however, relatively harder to negotiate in the water sector than in other infrastructure sectors. Indeed, unlike most other infrastructure assets, water sector assets are under ground. This tends to complicate the task of assessing their exact physical state and therefore the exact costs of meeting pre-specified performance targets. In such conditions, private operators might be reluctant, at least initially, to accept full responsibility for investments even if prices appear to be set at cost-covering levels. A second-best solution might then be to ensure that the difference between the tariffs collected from the users and the operator's remuneration can be earmarked to cover the cost of investments, and to give a large role to the private operator in the planning and execution of those investments.

31. Under such a scheme, the private operator does not commit to carry out all investments required to meet some pre-specified service standards, but only to carry out investments to the extent that funds have been earmarked for that purpose. This might somewhat reduce the incentives of the private operator to ensure that user tariffs do cover not only operation and maintenance, but investment costs as well. In addition, to the extent that the funds to be used for investment purposes do not belong to the private operator, there might also be a need for regulating the execution of investment work by the operator in order to limit the scope for excess profits on this activity (this is a regulatory issue to which we return in the Section on Regulating the Activities of the Private Operator, below). However, when properly implemented, the scheme ensures that investments can be carried out without having to rely on public sector intervention<sup>28</sup> and it preserves a degree of coordination between investments on the one hand and operation and maintenance on the other.

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<sup>26</sup> See, for example, van den Berg (2000).

<sup>27</sup> On the Buenos Aires concession, see Idelovitch and Ringskog (1995), at 27-50.

<sup>28</sup> The scheme described here pre-supposes that the difference between the revenues collected from users and the remuneration of the private operator is sufficient to cover not only the costs of asset replacements but also the costs of future network expansions. Under that scenario, there is indeed no need for any public sector intervention to finance investments in the water sector and the investment responsibilities of the private operator can be limited to using earmarked funds to carry out the required investments. If, on the other hand, user tariffs were sufficient to cover the costs of asset replacements but not those of network expansions, additional involvement would be required from the public sector or from the private operator (e.g. to borrow

32. As indicated in paragraph 7, above, the Government sought to implement a solution of this type in Côte d'Ivoire in 1987. The system has not worked exactly as planned, however. Tariffs have been increased more slowly than stipulated in the 1987 contract. In addition, the public sector, which accounts for about 25 percent of total sector revenues, fails to pay its water bills and SODECI, which is unable to cut off public sector entities for non-payment, has at times withheld payments to the FNE and FDE as a compensation measure. As a result, the resources transferred to the two funds appear insufficient to fully cover future investment and debt service needs.<sup>29</sup> Also, while SODECI was supposed to take the lead in planning and executing investments, a public agency – the *Bureau National d'Etudes Techniques et de Développement* (BNETD) – played the main role in that respect from 1987 to 1995, and tensions developed between the BNETD, the Water Directorate of the Ministry of Economic Infrastructure, and SODECI regarding the design of the investment program.<sup>30</sup>

33. In spite of these problems, overall sector performance since 1987 has been very good: the connection rate in Abidjan, which had been declining during most of the 1980's, has increased substantially since 1989 (see Figure 1, below); water quality has remained high; UFW is still a low 15%; and labor productivity, which had been increasing before 1987, continued to improve afterwards – there were about 3.8 employees per thousand connections in 1996, a good figure by international standards (see Figure 2, below). In addition, in 1995, BNETD's functions were reduced to those of technical consultant to the Water Directorate, which monitors SODECI's activities. As a result, SODECI's control over investment planning and execution increased substantially and tensions between the three entities have been reduced.<sup>31</sup> In 1996, the Government also addressed the need for additional financial resources to meet investment requirements by accepting to assume responsibility for repayment of a new loan by the French bilateral aid agency – the *Caisse Française de Développement* (CFD) – designed to finance investment programs, prepared by SODECI, for new production units and additional social connections.

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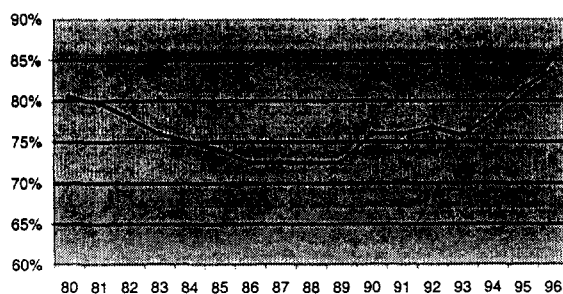
the sums required to perform network expansions – sums which could then be repayed using the revenues collected from the newly connected users). While imposing on existing users tariffs which cover all investment costs including network expansions thus minimizes the burden imposed on both the public sector and the private operator, it means that existing users are asked to pay for the network expansions which will benefit new users. Tariffs are therefore set above cost-covering levels, which might push them even further above the socially optimal marginal cost levels, or result in unduly high connection fees (see footnote 25, above).

<sup>29</sup> See Ménard and Clarke (2000b), at 35-36.

<sup>30</sup> Id., at 25.

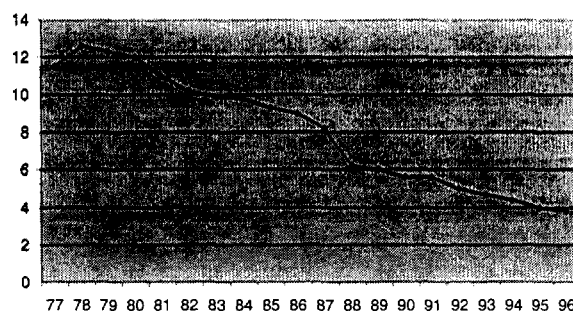
<sup>31</sup> Id.

**Figure 1: Estimated Connection Rate in Abidjan**



Source: Ménard and Clarke (2000b)

**Figure 2: Workers per Thousand Connections in Côte d'Ivoire**



Source: Ménard and Clarke (2000b)

34. Many French municipalities also rely on lease contracts with private operators to ensure water distribution services, and with tariffs at about cost covering levels the private operators play a central role in the planning and executing of investments. The examples of France and, to a certain extent, that of Côte d'Ivoire so far, thus tend to demonstrate that as long as required investments can be financed exclusively, or at least mainly, through sector revenues, there should generally be no need for establishing specialized public entities such as SHCs to assume responsibility for investment planning and financing. In Côte d'Ivoire, however, if reliance on loans from International Financial Institutions to finance investments were to become the rule rather than the exception in the future, the current model would in fact re-introduce the split, which existed before 1987, between the entity in charge of securing the financing (i.e. the Government) and the entity in charge of planning investments (i.e. SODECI), therefore potentially inducing SODECI to encourage over-investment or to invest inefficiently.<sup>32</sup>

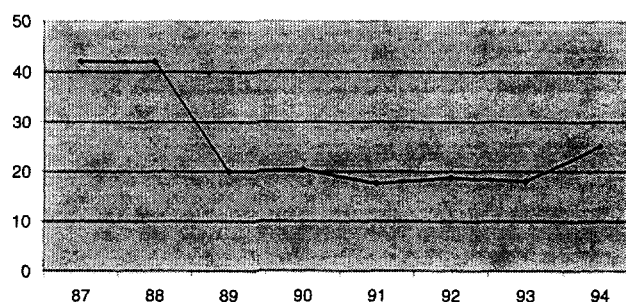
35. In Guinea, Gambia, and Senegal, on the other hand, private operators were very reluctant, at least initially, to assume major responsibility with respect to investment planning and financing because of the lack of credibility of the regulatory framework and/or the long transition period which would be required to progressively raise water tariffs to cost-covering levels. In such circumstances, the authorities decided to confer substantial investment responsibilities to the public sector. As mentioned above, the solution adopted in all three countries was to set up SHCs responsible for investment planning and financing.

36. The proponents of the SHC option argued that it would help to avoid the problems which arose in Côte d'Ivoire before 1987 when responsibility for financing investments and for planning them were conferred to different entities. They considered, in addition, that a financially autonomous SHC, which relies at least for part of its financing on revenues collected by the private operator, would have stronger incentives than a ministerial department to lobby the Government to ensure that tariffs were progressively raised to cost-covering levels, thereby increasing the likelihood that appropriate investment levels would be maintained in the long run. Given the generally very poor managerial and financial performance of public administrations, as well as their lack of financial accountability, some also argued that SHCs would have easier access than ministerial departments to the commercial loans which might be necessary if tariffs remained, for a time, insufficient to cover the remuneration of the private operator as well as investment and debt service needs. Finally, an additional argument in favor of SHCs is that they might constitute good vehicles for channeling donor funds, as some donors are reluctant to, or statutorily barred from, lending either to private operators or to non-commercial entities such as ministries.

<sup>32</sup> Id. at 28.

37. Performance did in fact improve after implementation of the reforms in both Guinea and Senegal. In Guinea which, as indicated above, had one of the weakest systems prior to the reforms, the connection rate rose from about 38 percent in 1989 to about 47 percent in 1996, and labor productivity rose sharply at the time of the reforms as labor retrenchment reduced the number of workers from above 40 to about 20 per 1,000 connections (see Figure 3, below). Water quality increased, consumer service improved, and while only about 5 percent of users had meters in 1989, 98 percent of private and 100 percent of public connections were metered in 1996.<sup>33</sup> Overall, the welfare effect of the reforms appears to have been very positive for domestic private users, thanks in large part to the increased connection rate.<sup>34</sup>

**Figure 3: Workers per Thousand Connections  
in Guinea**



Source: Shirley and Ménard (1999)

38. In Senegal, the fraction of the population of Dakar with access to safe drinking water has increased since reforms were implemented from about 80 to 82 percent and UFW has been reduced by about 4 percent, from 30 to 26 percent over the same period.<sup>35</sup> In addition, SONES did secure a commercial bank loan to help bridge the gap in revenues over a transition period during which tariffs are being progressively raised (see Box 3, below).

<sup>33</sup> See Ménard and Clarke (2000a), at 29-30.

<sup>34</sup> See Clarke, Ménard, and Zuluaga (2000), at 34-35.

<sup>35</sup> See World Bank (2000a), at 5-6.

**Box 3: Using the SHC to Bridge the Financing Gap in Senegal**

*In Senegal, an important investment program started to be implemented in 1996, as part of the reforms associated with the conclusion of the PPI arrangement in the water sector. Because the program was costly, because efficiency gains brought about by the investments and by private participation would only materialize progressively, and because social and political considerations dictated that water tariffs, which were low, could only be raised at a rate of 3% per year, the cumulative deficit in the sector increased during the first two years to peak at about US\$22 million in 1998. It is expected to be progressively reduced to zero at the end of 2003.*

*To cover the transitional deficit, SONES, the SHC, raised a loan in May 1997 from a syndicate of local commercial banks. The banks agreed to provide a seven year loan to SONES. SONES, in turn, agreed that the payments it would receive from the private operator would be deposited in a special account out of which the debt service payments would be made.*

*This operation was, however, difficult to arrange, for three main reasons: (i) SONES lacked experience in conducting such a transaction; (ii) banks were reluctant to extend loans with medium-term maturities of 5 years or more in an environment where macroeconomic risks were still perceived as high; and (iii) certain banks refused to extend loans to a State-owned enterprise unless the State agreed to pay old government debt which they still carried on their books.*

Source: Sorel (1999).

39. In Gambia, on the other hand, experience with the lease contract concluded in July 1993 is generally considered a failure. While the connection rate increased and UFW levels were reduced during implementation of the lease, this progress was due, not to the lease contract, but to implementation by the public authorities – with much delays – of a project prepared with various international donors during the second half of the 1980's. Relations between the SHC and MSG, the private operator, were tense from the very beginning. A severe lack of capacity within the SHC, both at the staff and at the managerial level, and a high degree of uncertainty regarding the precise scope of maintenance and investment responsibilities contributed to these tensions. The situation deteriorated further after the 1994 military coup, and when MSG initiated an aggressive campaign to disconnect non-payers the Government unilaterally terminated the contract in February 1995.<sup>36</sup>

40. Even in Guinea and Senegal where real progress took place, the lease agreements suffered from some of the problems mentioned under paragraph 28 – such as relatively weak performance of public entities, poor coordination between operational and investment activities, disputes over the exact scope of maintenance and investment responsibilities, and lack of accountability for overall performance - which are common when operation and maintenance functions are entrusted to a private operator while a public entity remains in charge of investment planning and financing. In addition, conferring responsibility for investment planning and financing to a SHC often exacerbated some of those problems because the arrangement tended to breed resentment on the part of the SHC's employees. For a start, SHC employees who used to run the water utility prior to private sector involvement, were generally reluctant to cede to the private operator responsibility for operating the utility, maintaining the infrastructure, and implementing some investments, since this reduced the scope of public sector jobs, and therefore the influence and non-salary benefits that these jobs bestowed. Furthermore, while SHC employees might have felt lucky to retain a job, they often found out that as public servants, they had less precise

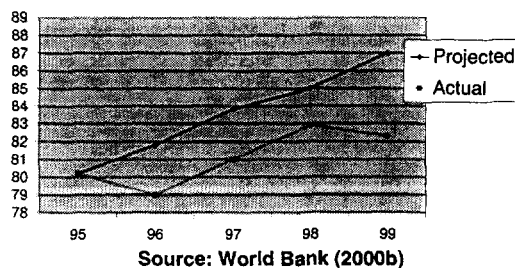
<sup>36</sup> See World Bank (1996), at 3.

objectives, fewer resources at their disposal, and lower salaries than their colleagues retained by the private operator. Such factors could only increase the resentment against private and particularly foreign operators generally prevalent in the public sector, and tended to make relations between the SHC and the private operator even more difficult.

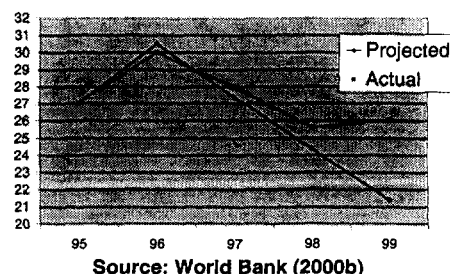
41. In Guinea, for example, SONEG and SEEG often disagree on priorities concerning network expansion. In addition, SONEG, which is responsible for extensions to the network and for major rehabilitation work, is often slow in implementing investment programs. Such factors have played a role in limiting the increase of the connection rate below forecasts.<sup>37</sup> It has also prompted SEEG, which is formally responsible only for maintenance of all the pipes below a certain diameter, to try to develop infrastructure directly, beyond its contractual responsibilities and this creates a further cause of tension between the two parties.<sup>38</sup> While estimates of UFW varied widely during the early 1990's because of low metering, current levels of about 50% are very high and unlikely to be lower than before the reforms. This is due, at least in part, to coordination problems between SONEG, and SEEG. Also, as both parties have some capacity to influence the amount of UFW, each party has been able to blame the other for the poor performance in that area.<sup>39</sup>

42. In Senegal, progress achieved with respect to access to safe drinking water and level of UFW has remained below performance objectives established in 1995, in part because of delays in implementing works for which SONES, the SHC, is responsible (see Figures 4 and 5, below).<sup>40</sup> Also, while extensive efforts have been made to clarify the responsibilities between the parties through careful wording of the contract as well as through the organization of meetings and seminars during which the parties worked on resolving their differences,<sup>41</sup> it has proved impossible to definitively eliminate all possible sources of disagreements in that respect. In addition, the transfer of operational responsibilities to SDE might be resented by some staff within SONES. As a result, tensions do persist between the private operator and

**Figure 4: Actual and Projected Shares of Population with Access to Safe Drinking Water in Dakar**



**Figure 5: Actual and Projected Level of UFW in the Dakar Region (% of Water Produced)**



<sup>37</sup> See Ménard and Clarke (2000a), at 28.

<sup>38</sup> The CFD, for example, extended a loan to support development of new infrastructure, whose repayment is the responsibility of the Government, but whose implementation is carried out directly by SEEG. Id., at 26.

<sup>39</sup> See Brook (1996).

<sup>40</sup> See, World Bank (2000a), at 4-5.

<sup>41</sup> No less than four workshops were organized shortly after the start of private operations, three of them mainly devoted to try to solve differences in the way each party interpreted the exact scope of its contractual responsibilities. See Janssens (1999), at 7-8.

the SHC.

43. Overall, the experiences discussed above do show that some progress on the investment planning and financing front is possible, in certain cases, under PPI arrangements that involve SHCs. The experience of Senegal – where SONES managed to raise a loan from commercial banks – also tends to support the view that, at least in some circumstances, SHCs might perform investment planning and financing functions more effectively than ministries. However, it is equally clear that even in the best case scenarios, PPI arrangements that involve the transfer of responsibilities for investment planning and financing to SHCs present serious drawbacks. Those drawbacks stem, mainly, from an uneasy division of responsibilities between public and private parties, as well as from the particular characteristics of SHCs which often tend to accentuate tensions with the private operators.

44. Because of these problems, allocating responsibility for investment planning and financing to SHCs is certainly not a first best option. When private parties can accept full responsibility for meeting all investment obligations (as under full concessions) or at least for planning and implementing investments to be financed through cost-covering sector revenues (as attempted in Côte d'Ivoire), there is clearly no need for entrusting a SHC with investment responsibilities. When, on the other hand, sector revenues are clearly insufficient to cover investment costs or when regulatory uncertainty is high, there might be no choice but to entrust ultimate responsibility for financing investments to a public entity. In that case, in order to avoid the problems which emerged in Côte d'Ivoire before 1987, it might be advisable to also confer final decision-making power with respect to investment planning to the same entity. Whether this entity should be a ministry or a SHC will then depend, in each particular case, upon whether a SHC would indeed perform its investment functions more effectively than a ministry for the type of reasons mentioned under paragraph 36, above.

### **3.3. Regulating the Activities of the Private Operator**

45. As mentioned in paragraph 21, above, it is very often argued that the natural monopoly characteristics and social importance of water distribution mandate the imposition of a specific set of rules upon operators. The broad, overall regulatory framework – which might include, for example, the general rules determining the way in which private operators are to be selected as well as of the type of price control to be imposed upon the operators – is usually determined by political authorities. Regulatory powers then have to be exercised to ensure the effective implementation of that broad framework. This requires the exercise of varying degrees of discretion, depending upon the level of specificity of the regulatory framework adopted by political authorities.

46. In Côte d'Ivoire, the Water Directorate of the Ministry of Economic Infrastructure exercises such regulatory powers. In Guinea, Gambia and Senegal, on the other hand, regulatory responsibilities have been shared between the Government and the SHC. In the three countries, the process of implementing the selection process designed by political authorities to identify the private operator was conducted by the Government itself. The SHC was, however, in each case, party to the contract concluded with the private operator (in Guinea and Gambia the contract was signed only by the SHC and the private operator, while in Senegal the Government was a signatory to the contract as well). In Guinea and Gambia, the Government retained the authority to set consumer tariffs while the SHC was given responsibility for adjusting, and if necessary renegotiating, the private operator's remuneration. In Senegal, the SHC, in addition, proposes adjustments to the consumer tariffs on the basis of pre-determined adjustment mechanisms. In the three cases, quality standards were defined in the private operator's contract or in separate performance agreements and the SHC was given the task of monitoring the operator's compliance with those standards, as well as with the other regulatory requirements. In both Guinea and Gambia, the SHCs were given the right to impose sanctions, including termination of the

contract, while in Senegal, enforcement powers remain with the Government. A summary comparison of the allocation of regulatory functions in the three countries is presented in Table 1, below.

**Table 1: Allocation of Regulatory Responsibilities Between the Government and the SHC in Guinea, Gambia and Senegal**

	Guinea		Gambia		Senegal	
	Gvt	SHC	Gvt	SHC	Gvt	SHC
Selecting private operator	✓		✓		✓	
Setting consumer tariff	✓		✓		✓	
Administering consumer tariff	✓		✓			✓
Setting operator's share of consumer tariff	✓		✓		✓	
Administering operator's share of consumer tariff		✓		✓		✓
Setting performance standards	✓		✓		✓	
Monitoring private operator's compliance		✓		✓		✓
Imposing penalties on private operator		✓		✓	✓	

Source: République du Sénégal, Ministère de l'Hydraulique (1994).

#### *Public vs. Private Sector Options*

47. A wide body of literature has been written on the institutional requirements which should ideally be satisfied by regulatory authorities, and a majority of commentators insist on three main inter-related dimensions: (i) independence; (ii) legitimacy; and (iii) competency.<sup>42</sup> It is first argued that given the politically sensitive nature of most infrastructure services (and this is particularly true of water distribution services), governments are often tempted to impose uneconomic tariffs and other obligations which hamper the efficiency of infrastructure service providers and deter private operators and investors from participating in the provision of those services. In order to overcome that problem, regulators should therefore be protected from undue political pressures and be as independent as possible from political authorities. In addition, to prevent conflicts of interest and capture by the regulated industry, regulators should also be independent from the enterprises which they are regulating.

48. Second, performing regulatory functions is ultimately an act of public authority and in order to ensure that the exercise of regulatory powers is seen as legitimate, it is therefore important that independence be combined with accountability with respect to both political authorities and users. Requiring the regulator to publish regular reports on its activities, subjecting the regulator to budgetary controls and ensuring that the regulator can be dismissed in well-specified cases of gross misconduct, for example, are all measures which can help ensure sufficient accountability vis-à-vis political authorities. Giving interested parties opportunities to present their views before regulatory decisions are taken, requiring that regulatory decisions be published and reasons for them given, and ensuring the existence of some appeal mechanisms against regulatory decisions can, for their part, contribute to make the regulator accountable to both users and political authorities.

49. Third, given the technical complexity of many regulatory issues, ensuring that the entity in charge of those issues is able to mobilize adequate expertise is key. This supposes that sufficiently attractive conditions be offered to regulatory staff to attract fully qualified candidates and that resources be

<sup>42</sup> See, for example, Smith (1997 a, b, and c).



available to rely on outside experts to address a range of issues – such as highly technical or specialized matters for example – which regular staff might be ill-equipped to tackle.

50. The independence requirement means that generally, neither a ministry nor the private operator itself, should be entrusted with regulatory responsibilities. On the other hand, in order to satisfy the legitimacy requirement, ultimate responsibility for regulatory decision needs, in most cases, to lie with a public authority. This does not mean that private experts have no role to play. On the contrary, in order to meet the competency requirement and mobilize sufficient expertise to perform technically difficult functions, a public regulatory entity might benefit from contracting out some regulatory tasks. In some circumstances, whole regulatory functions may even be contracted out. Chile, for example, contracts out the technical monitoring of water standards.<sup>43</sup> International arbitration, might also be relied upon to solve some highly technical regulatory issues.<sup>44</sup> However, a public authority will remain necessary to take responsibility when decisions require the exercise of substantial discretionary powers with respect to politically sensitive issues.

#### *Public Sector Options*

51. The PPI experiment of Côte d'Ivoire illustrates some of the drawbacks associated with entrusting regulatory responsibility to a ministerial department. While the Water Directorate is responsible for negotiating adjustments to SODECI's remuneration and to propose changes to consumer tariffs, those tariffs ultimately have to be approved by the Council of Ministers. The process is therefore highly political and, as a result, price increases have been implemented more slowly than contractually stipulated in 1987, which led, as pointed out above, to lower than expected sector revenues. Price increases have also been more erratic than anticipated. The prices which were supposed to be adjusted every five years according to contractual provisions, have in fact been renegotiated on an ad-hoc basis. Consequently, instead of being able to count on benefiting from greater than anticipated cost savings for five year periods, the operator faces the risk of losing the benefit of such savings through unscheduled price adjustments and this has arguably reduced the operator's incentives to cut costs.<sup>45</sup> Finally, some doubts have been expressed about the Water Directorate's capacity to efficiently monitor SODECI's investment activities: SODECI might thus be able to earn excess profits on these activities, and might also give undue priority to small investments – or lose in efficiency by dividing large investments into series of smaller projects – in order to benefit from contractual provisions which state that all projects valued below FCFA120 million (about US\$220,000 in 1996) can be implemented by SODECI without the need to organize competitive tenders.<sup>46</sup>

52. The option chosen by Guinea, Gambia, and Senegal, of conferring regulatory responsibilities to a SHC would seem to present, in theory, some advantages. First, regulatory decisions can be somewhat less influenced by short-term political considerations if they are taken by a SHC than if they are taken directly by the Government. As indicated above, in Guinea, Gambia, and Senegal it was expected, for example, that SHCs would constitute a force in favor of maintaining cost-covering tariffs. Second, SHCs are staffed with people having an intimate knowledge of the sector, which might facilitate the execution of a certain number of regulatory functions. Knowledge of the cost structure of the activity might, for example, help to determine appropriate levels of remuneration for the operator. People with experience in

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<sup>43</sup> See Kerf and Smith (1996), at 43.

<sup>44</sup> *Id.* at at 44.

<sup>45</sup> See Ménard and Clarke (2000b), at 37.

<sup>46</sup> *Id.* at 27-28.

operating the water distribution system might also be in a good position to evaluate the level of performance which should be expected from the operator and to monitor efficiently its activities.

53. There are, however, good reasons to doubt that, in practice, a SHC will often be the best suited entity to assume regulatory responsibilities. As a 100 percent State-owned entity representing the State's ownership interests, a SHC will usually be tightly controlled by the Government. In Guinea, Gambia, and Senegal, it was decided that Government Ministers would occupy prominent positions on the boards of administration of the SHCs and the SHCs appear therefore ill-equipped to resist undue political pressures. The complex relationships which tend to develop between the SHC and the private operator are also very likely to interfere with the performance of the SHC's regulatory responsibilities. First, there is a risk that the regulating SHC might be captured by the private operator because the staff of the SHC, who used to work for the public utility, are likely to keep close contacts with their ex-colleagues now working within the private operator's company. Second, the SHC might well, on the other hand, be an unduly harsh regulator: as pointed out under paragraph 40, above, staff of the SHC typically have multiple reasons to resent the loss of their operating functions and to bear a grudge against their colleagues, working within the private company, who are now in charge of those functions and are very likely to benefit from better working conditions than existed before the reforms. Third, the SHC will also be in a poor position to exercise regulatory authority if, at the same time, it is in charge of investments or of other functions which affect the performance of the private operator: such a situation would give rise to serious conflicts of interests as the SHC would be both judge and judged (and other conflicts of interests might arise when the SHC performs both ownership and regulatory functions). Fourth, since the staff of the old public utility have gained much of their experience providing the service themselves, they will often be tempted to micro-manage the private operator. This latter problem will only be exacerbated if they do resent the loss of their operational functions.

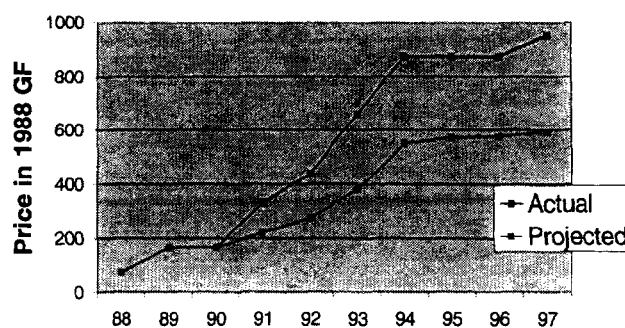
54. Furthermore, while public utility staff will generally have a good knowledge of the technical aspects of service provision, they will usually have very little qualifications and experience regarding legal, financial, and procedural matters essential for successful regulation. In addition, sector specific SHCs such as those created in Guinea, Gambia, and Senegal do not benefit from the potential advantages of cross-sector regulatory agencies. These advantages might include, for example: ability to pool scarce human resources with regulatory expertise within a single entity; greater autonomy of a cross-sector entity both from specific sector ministries and from individual firms; and greater ability of a cross-sector entity to apply the experience gained in one sector to the regulation of other sectors (all the more important since several regulatory issues of an economic, financial, or legal nature bear many similarities across infrastructure sectors).

55. The experiences of Guinea, Gambia, and Senegal provide illustrations of the problems experienced by SHCs entrusted with regulatory responsibilities. In Guinea, for example, SONEG's board is under direct government control and its staff, including the Director General, is also appointed by the Government. There is thus no protection against political interference in the regulatory process. In these conditions, maintaining good relations with Government representatives is of the utmost importance for the private operator, which is therefore understandably reluctant to take a tough stance against pervasive non-payment of water bills by the public sector. This in turn contributes to push water prices up, as large fixed costs are passed on to those private users who actually pay their bills.<sup>47</sup> Another factor which contributes to increase water prices is SONEG's lack of regulatory capacity. SONEG has proved unable to force SEEG to comply in a timely fashion with its financial reporting requirements, and the SHC has problems assessing whether SEEG's requests for increases of its remuneration are reasonable. This in turn affects consumer tariffs, which have increased faster than what was anticipated at the time of the

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<sup>47</sup> Ménard and Clarke (2000a), at 35.

**Figure 6: Actual and Projected Tariff Increases in Guinea**



Source: Ménard and Clarke (2000a)

reforms (see figure 6 below). Water prices are now relatively high by international standards and poor, or even middle income users have problems paying their water bills. In addition, with poor regulatory oversight, SONEG seems to be operating under a de facto cost-plus arrangement, which transfers many commercial risks to the Government. This transfer of commercial risks to the public sector might arguably be made worse by the fact that SONEG also appears unable to enforce a clear separation between SEEG's activities under the lease contract and SEEG's public work activities conducted under separate contracts: in the absence of such clear separation, SEEG might be able to allocate any cost overruns incurred because of its operational activities (for which SEEG should bear some commercial risks) to its construction activities (for which SEEG is not supposed to bear any commercial risks).<sup>48</sup>

56. The SHC in Gambia also appears to have been unable to perform its monitoring functions satisfactorily. There was continued government interference in UHC's internal affairs which prevented proper application of tariff provisions and water prices were in fact left unchanged during implementation of the lease agreement. In addition, as pointed out above, UHC staff's lack of technical capacity and hostility toward the lease arrangement prevented the SHC from conducting its regulatory functions in an efficient and balanced manner.<sup>49</sup>

57. In Senegal, yearly tariff adjustments have so far been implemented as planned, and public entities do pay their water bills. Various work programs, financed through a loan by International Financial Institutions, are being implemented to harmonize the statutes of SONES, evaluate the capacity of its staff, and conduct training programs. However, tensions do exist between the private operator and the SHC. As suggested above, these tensions might be due, in part, to unavoidable difficulties in specifying the responsibilities of each party, and to the resentment which some of SONES's staff might harbor toward the transfer of operational functions to the private operator. SDE has in fact denounced SONES's tendency to micro-manage its activities. Such problems were foreseen at the design stage of the reforms in Senegal, and various measures have been taken to try to alleviate them. For example, not only the SHC but also the Government is signatory to the contract concluded with the private operator, in order to provide comfort to the private operator in the face of potential hostility by the SHC to the PPI arrangement. Also, seminars were devoted to define the limits of SONES's monitoring role and to devise appropriate regulatory procedures.<sup>50</sup> While undoubtedly useful, such measures proved insufficient, however, to put an end to the tensions and problems associated with implementation of the regulatory framework.

<sup>48</sup> See Brook (1995), at 5.

<sup>49</sup> See World Bank (1996), at 3.

<sup>50</sup> See Janssens (1999), at 8.

58. Conferring overall regulatory responsibilities to a SHC is thus likely to yield unsatisfactory results. On the other hand, entrusting the SHC with some technical tasks such as setting performance targets for the private operator and/or monitoring the private operator's activities might at first seem to present advantages since the personnel of the SHC is likely to possess excellent knowledge of the technical aspects of service provision. Allocating monitoring functions to a SHC and other regulatory responsibilities to other bodies could also be seen as a positive step toward ensuring proper separation between legislative, executive, and judicial powers, thereby preventing abuses of power by regulatory authorities. Splitting regulatory responsibilities in this way could, however, dilute regulatory authority, create coordination problems between different regulatory authorities, and make it more difficult for each entity to attract the technical expertise that it needs if such expertise is in short supply. Separating responsibilities for setting performance targets and for determining the remuneration of the private operator, in particular, could seriously increase uncertainty for the operator since the level of performance which must be met has a strong impact on the operator's costs. In addition, the various factors mentioned above – risks of regulatory capture, possible conflicts of interests between investment or ownership functions and regulatory functions, possible hostility toward the PPI arrangement combined with a tendency to micro-manage the private operator, and lack of regulatory capacity – do jeopardize the ability of the SHC to adequately perform any type of regulatory functions. Therefore, if the advantages of allocating different regulatory responsibilities to different entities are deemed to outweigh the disadvantages, some private firms, such as international chartered accountancy companies, would probably be better equipped than SHCs to perform some regulatory functions with competence and impartiality.<sup>51</sup>

59. The range of likely problems identified in the preceding paragraphs and the actual experience of the SHCs set up in Guinea, Gambia, and Senegal point to the potential superiority of autonomous, specialized regulatory agencies to carry out regulatory functions. Entrusting regulatory functions to a specialized entity makes it easier to preserve the autonomy of that entity with respect to political authorities and to avoid conflicts between ownership and regulatory functions as the regulator does not have to represent the State's interests as the owner of sector assets. A specialized regulatory agency, which would not be staffed primarily with former employees of the old public utility, would also be much more likely than the SHCs set up in Guinea, Gambia, and Senegal to maintain its independence and impartiality with respect to the enterprises which it has to regulate. Regulatory agencies with staff whose qualifications encompass not only the technical aspects of water distribution, but also a whole range of legal, financial, and procedural skills, would be less likely to succumb to the temptation of micro-managing private operators and would be better equipped to perform regulatory functions competently. The independence of the agency with respect to both the Government and the regulated industry, as well as the competence of the agency, could be further enhanced by setting up such an agency on a cross-sector basis as it would limit the influence which could be exercised upon the agency by any single sector ministry or private operator as well as increase the scope for cross-fertilization of regulatory experiences across sectors. Specialized regulatory agencies would also be less likely to suffer from the conflicts of interest which are bound to affect a regulatory entity, such a SHC, which also exercises non-regulatory functions impacting upon the performance of regulated enterprises. Finally, focussing the responsibilities of an independent regulatory agency upon regulatory matters only would arguably make it easier to structure the agency itself and the procedures that it would have to follow in such a way as to ensure that the agency can be held accountable not only to political authorities, but also to the users.

60. Chile, for example, has established in 1989 a specialized regulatory agency - the Superintendencia de Servicios Sanitarios (SSS) - which benefits from at least some of the features

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<sup>51</sup> See Brook (1995), at 7.

mentioned above: it is an autonomous decentralized entity, whose head is appointed by the President, and whose main functions are to grant concessions or other private contracts for the provision of water supply and sewerage services, to regulate tariffs, and to monitor the operators' compliance with technical standards.<sup>52</sup> Today, however, the concept of a specialized regulatory entity, protected from undue pressure from both the Government and the regulated firms, remains foreign to the political and legal traditions of many countries (as is the case, for example, in the four African countries discussed in the present paper). The best solution in such circumstances is probably to take at least some steps toward establishing an independent regulator. Regulatory independence from political authorities, for example, is a relative rather than an absolute concept. A great number of measures can be adopted to try to ensure that independence, such as: specifying the regulator's mandate in the law; requiring approval of the regulator's nomination by representatives from both the executive and legislative branches; limiting the grounds on which regulators can be dismissed; ensuring that regulatory decisions are taken by a commission rather than by a single individual and that the mandates of the different members of the commission end at different dates so that it is less likely that they might all be replaced by the same government; providing the regulatory entity with reliable and independent sources of funding such as taxes levied on the regulated firms etc. Creating a regulatory agency which benefits from a few of these measures only might not achieve the goal of full protection toward political interference but it might still constitute progress compared to the alternative of conferring regulatory functions to a ministry or a SHC. Also, if an independent body cannot be entrusted with decision-making powers, it might still be worthwhile, as a first step, to establish an independent agency with advisory powers.

61. When even such limited measures are unacceptable to the authorities, and when the regulator has to be either a SHC or a ministerial department, the choice will often be difficult and results are likely to be unsatisfactory in either case. A SHC might be exempted from civil service salary rules and might therefore be able to offer more attractive terms of employment than a ministerial department to attract qualified staff. It might also benefit, but often to a very limited degree only, from some protection against political pressures. On the other hand, the personnel of a ministerial department might have a broader range of competencies than that of a SHC. In addition, it might be easier, when regulatory functions are performed by the Government, to reduce, to some extent, the risks of conflicts of interests mentioned above: regulatory functions could, for example, be entrusted to a central ministry different from the ministries which might retain ownership, policy, or investment responsibilities in the sector. In addition, a central ministry might be called upon to regulate more than one infrastructure sector, thereby decreasing the risks of regulatory capture by any single operator. It is not obvious, therefore, that a SHC will be better suited than a ministry to exercise regulatory functions unless it can substantially broaden the traditional scope of competencies of its staff, benefit from some real degree of autonomy to reduce the risks of capture by public and private entities, and focus on regulatory functions only in order to avoid conflicts of interest.

### **3.4. Promoting Acceptance of the PPI Arrangement**

62. The introduction of private participation in infrastructure sectors traditionally monopolized by public entities is a major policy shift. It is likely to draw resistance from some quarters, particularly from public sector staff who might be concerned about possible job losses and from segments of the population who might fear price increases, lower quality of service, narrower scope of public service obligations, or even economic "re-colonization" if a foreign private company takes over the operation of the network.

63. In Guinea, Gambia, and Senegal, it was argued that creating a SHC would help to promote acceptance of the reforms. As mentioned above, establishing SHCs was seen, in all three countries, as a

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<sup>52</sup> See Rivera (1996), at 62-63.

way of maintaining jobs in the water sector for some of the public sector employees who would not integrate the new company set up by the private operator. Creating such SHCs was also, to some degree, a political gesture, signaling that the State intended to remain strongly involved in the sector and ensure that the interests of the general public would be well defended. In addition, in Senegal, the SHC was formally entrusted with responsibility for conducting a public information campaign to explain the benefits which could be expected from the reforms and, in particular, to communicate information about the administrative process which users have to follow to benefit from social connections.<sup>53</sup>

#### *Public vs. Private Sector Options*

64. The private operator undoubtedly has a role to play with respect to the type of functions mentioned above. The private operator can help secure public support for its activities, for instance by entering into agreements with unions and political authorities on the number of jobs to be maintained in the sector, by providing training for the workers that it retains or for those who are being laid off, and by informing the public about progress already made and plans to improve services further. In all four countries, the private operator did negotiate with interested parties the number of ex-public sector employees whom it would hire. In Guinea, SEEG contributed to the organization and monitoring of training modules designed to help those workers who would not join the private company or the SHC, to establish cooperatives specializing in public works. In Senegal, SDE is closely monitoring the impact of its activities on the users by conducting consumer surveys which track the evolution of the public's perceptions about service quality.

65. Whatever the private operator's role in this respect, the public authorities, as the main guarantors of public interests, do however retain a key responsibility to help diffuse the social tensions which are likely to emerge when overstaffing issues have to be addressed, to select the institutional formula best adapted to assuage potential concerns about the reforms, and to inform the public about the rationale for reforms, their expected benefits and risks, and the measures taken to mitigate such risks.

#### *Public Sector Options*

66. The experiences of Côte d'Ivoire, Guinea, Gambia, and Senegal, as well as those of other countries worldwide, tend to demonstrate that establishing a SHC is neither a necessary requirement, nor even a particularly effective measure, to promote acceptance of PPI reforms in the water sector. Establishing a SHC for the purpose of maintaining jobs for workers who would not otherwise be retained in the sector imposes costs upon all users (or upon tax payers) and is not sustainable in the long term. While private participation may force (often overdue) layoffs by the main service provider, it often coincides also with broader opportunities for enterprise creation in the sector as a whole, as the private operator contracts out a variety of tasks to increase overall efficiency. When such new opportunities are insufficient, or for those unable to take advantage of them, the establishment of proper safety nets combined with training programs to facilitate conversion towards other activities constitutes the only sustainable solution. In Guinea, for example, only about half the people previously employed by DEG, the public agency responsible for water distribution before the reforms, were retained in the sector. However, the measures taken to facilitate conversion of laid off workers, and particularly the training provided to them by the private operator as mentioned above, greatly reduced workers' opposition to the reform.<sup>54</sup> And in Buenos Aires, where no SHC was set up, 1600 employees accepted voluntary early retirement on severance packages financed by the Government before the private concessionaire took over the management of the water utility, and a further 2000 employees accepted retirement packages

<sup>53</sup> World Bank (2000a), at 9.

<sup>54</sup> See Ménard and Clarke (2000a), at 16.

offered by the concessionaire itself. As in Guinea, the utility, which was originally heavily overstaffed, saw the number of its employees reduced by about half and a number of former employees are now providing services to the company on a contractual basis. About 8000 independent contractors are thus estimated to work in the Buenos Aires water and sewerage sector.<sup>55</sup>

67. It is clear also that setting up a SHC will do very little, *per se*, to reassure interested parties that public interests are well defended by the Government. Public perceptions about the way in which the benefits and costs of reforms are to be distributed between various parties depend upon a wide array of factors which go well beyond the issue of whether or not a SHC has been established in the sector. It would be very hard to argue, for example, that just because of the existence of a SHC, people in Guinea, Gambia, and Senegal have felt more confident about the reform process than people in Côte d'Ivoire. In fact, it could be argued that in some cases, the lackluster performance of SHCs has decreased rather than increased the public's confidence in the reform process.

68. Finally, SHCs appear ill-equipped to conduct a public information campaign on the potential benefits of the reform process. First, staff of the SHC will generally lack the training and experience required to perform such communication functions effectively. Second, and perhaps even more importantly, staff of the SHC are unlikely to be good advocates of the reform process since they have reasons, as pointed out above, to resent the entry of a private operator in the sector. The Government itself, perhaps assisted by the independent regulator if one exists, would appear to be in a much better position to take the lead in conducting the public information functions which are key to a successful implementation of the reform process.

#### 4. CONCLUSIONS

69. The experiences of Guinea, Gambia, Senegal, and Côte d'Ivoire in the water sector show that allocating responsibilities to the type of SHCs examined in the present paper will often constitute a sub-optimal solution as there are very few functions which SHCs appear better suited than other entities to carry out. The creation of a SHC might be justified to plan and finance investments, but only when that responsibility cannot be transferred to the private operator and when tariffs are insufficient to cover investment needs so that access, by a public entity, to other sources of finance is crucial. Even then, a SHC might be the best equipped entity to carry out those investment functions only if its financial strength and accountability, or its incentives and ability to ensure that tariffs are gradually brought to cost-covering levels, are superior to those of a ministerial department.

70. Sustainable development of the sector will however remain very fragile as long as cost-covering tariffs are not implemented. Once such tariffs can be implemented, the objective should normally be to transfer all investment responsibilities to the private operator in order to benefit from the private operator's know-how, improve coordination between operational and investment requirements, clarify the overall allocation of responsibilities, strengthen the private operator's accountability for overall service performance, and give the private operator stronger incentives to ensure that cost-covering tariffs will effectively be maintained in the long run. If, in spite of cost-covering tariffs, the private operator remains unwilling to assume responsibility for investment financing, it should generally be possible to entrust it with at least the investment planning and executing functions. Such a scheme still presents the advantages mentioned above except that as the private operator is not responsible for financing the investment program, it will not have the same incentives to ensure that cost-covering tariffs are maintained.

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<sup>55</sup> See Idelovitch and Ringskog (1995), at 41.

71. One should not forget, in addition, that once created, SHCs, like any other institutions, have a tendency to cling to their responsibilities (and even to try to extend them) in order to justify their existence. SHCs might in particular be tempted to block future transfers of investment-related responsibilities to the private operator. It is therefore important, if SHCs are created, to take appropriate measures (such as sunset clauses associated with adequate incentives to the managers of the SHCs) to ensure that they do not become obstacles to transfers of additional responsibilities to the private operator when such transfers become feasible.

72. As for the other functions discussed above - representing the State's ownership interests, regulating the activities of the private operator, or promoting acceptance of PPI reforms - it is hard to envision circumstances under which SHCs would be the best suited institutions to take responsibility for carrying them out. In addition, if investment responsibilities are transferred to a SHC, it is likely to make the SHC even less suitable to perform some other tasks (of a regulatory nature for example) since allocating those various responsibilities to a single entity would give rise to conflicts of interest issues.

73. It is important, finally, to re-emphasize, that while the above conclusions might hold in most circumstances, any decision regarding the potential establishment of, and allocation of responsibilities to, a SHC will require a careful study of the specific features of the proposed entity and a thorough analysis of the circumstances of the particular country and infrastructure sector concerned.



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